



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,870	06/21/2001	Hitoya Tachikawa	14728	6084
23389	7590	01/12/2005	EXAMINER	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530			LE, VIET Q	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/886,870	TACHIKAWA, HITOYA	
	Examiner	Art Unit	
	Viet Q. Le	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

The title of the application shall not appear in the specification.

Examiner believes that the word "replay" should be changed to the word "reply" as appeared on pages 5-6 and 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 11 are single means claims.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2667

5. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 11 are indefinite because examiner could not determine which extensions define in RS2332 the applicant specifies.

6. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: system elements required to conduct route-tracing resolution using extensions.

7. Claims 1-20 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure, which goes to make up the device, must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

8. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

9. Regarding claim 6, the phrase "i.e." renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Art Unit: 2667

10. Claims 21-30 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: steps how one can achieve tracing route resolution using extensions.

11. Claims 21-30 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure, which goes to make up the device, must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

12. Claims 21-30 provide for the use of route tracing resolution, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. The claims are indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 21-30 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-7, 11-17 and 21-30 are rejected under 35 U.S.C. 102(b) as being anticipated by the RFC 2332 standard.

Regarding claims 1 and 21, RFC 2332 standard described using extensions of an NHRP protocol to trace route resolutions in a NHRP/MPOA network (See page 5, paragraph 8).

Regarding claims 2 and 12, RFC 2332 standard described a MPOA client capable of tracing route resolution using an MPOA packet (See page 7, paragraph 4-5).

Regarding claims 3 and 13, RFC 2332 standard described using an MPOA server capable of tracing route resolution using MPOA packet (See page 7, paragraph 6-8).

Regarding claims 4, 14, 22 and 27, RFC 2332 standard described using a NHRP (Next hop resolution protocol) to determine whether or not a particular destination is reachable (See page 5, paragraph 4-5).

Regarding claims 5, 15, 23 and 28, RFC 2332 standard described techniques in detecting routers, a next hop server and MPOA server using NHRP packet (See page 2).

Art Unit: 2667

Regarding claims 6, 16, 24 and 29, RFC 2332 standard described the use and functions of the three extensions to detect the next hop server: Responder address extension, NHRP Forward NHS Transit Record extension and NHRP Reverse Transit NHS Record extension (See page 5, paragraph 8; See page 6, paragraph 1; See section 5.3.1-3).

Regarding claims 7, 17, 25 and 30, RFC 2332 standard described means detecting the Next hop server or a last MPOA server by sending out an NHRP Resolution Request to which a responder address extension, an NHRP Forward NHS Transit Record Extension and an NHRP Reverse NHS Transit Record Extension are added (See page 5, paragraph 8; See page 6, paragraph 1; See section 5.3.1-3).

Regarding claims 11 and 26, RFC 2332 standard described means for tracing route resolution using hop count of an NHRP protocol (Defined in RFC 2332).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2667

16. Claims 8-9 & 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the standard RFC2332 in view of Tatsuya Jimmei et al. (US 2004/0071135 A1), hereinafter referred to as Tatsuya.

Regarding claim 8 & 18, standard RFC 2332 described the (NHRP) next hop resolution protocol and how it work (See standard RFC 2332).

The standard RFC 2332, however, fails to disclose what the system comprises of in carrying out this NHRP protocol.

Tatsuya disclosed a system consisting of: an input unit, an output unit, a route search-commanding unit (See Fig. 16, block 300; Fig. 17), a receipt unit, a packet handling (See Fig. 16, block 301) and a transmission unit (See Fig. 16, block 306) for sending a Resolution Request to the RPOA client (See Fig. 16-18; See paragraphs 188-192).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to build a NHRP/MPOA system in according with standard RFC-2332, the motivation being that system built will comply to industry standard RFC 2332.

Regarding claims 9 & 19, standard RFC 2332, however, fails to disclose the system comprises of the memory storing router table, router information and network interface information.

Tatsuya discloses a memory storing a routing table on the router, network interface information, and router information (See Fig. 16, block 300).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the NHRP/MPOA system with the memory to store

Art Unit: 2667

routing table, network interface information and router information, the motivation being that system will have the memory in order to carry out the protocol process as described in industry standard RFC 2332.

Allowable Subject Matter

17. Claims 10 & 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 10 and 20 are allowable over prior art of record since the cited reference taken individually or in combination fails to particularly disclose the system consisting of route resolving circuit, route information storage, the layer 2 & 3 resolving circuit, MPOA (MPC) information processing circuit, the packetizing circuit, and an extension reconstructing circuit.

It is noted that the closest prior art, RFC 2332 standard shows and describes the next hop resolution protocol. However, RFC 2332 fails to disclose how one system can be constructed and render obvious the above underlined limitations as claimed.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2667

- a) Kazuo Sakagawa et al. (U.S. 6,421,321), Apparatus and a method for transferring a packet flow in a communication network.
- b) Naoki Oguchi et al. (U.S. 6,625,658), End equipment and router.
- c) Tatsuya Jimmei et al. (US 2004/0071135 A1), Network node apparatus and connection set-up method for setting up cut-through connection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Le whose telephone number is 571-272-2246. The examiner can normally be reached on 8 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RICKY NGO
PRIMARY EXAMINER